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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/199,506 11/25/98 ACCARDI

K 15-SV-4769

EXAMINER

TM02/0731

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ART UNIT

PAPER NUMBER

2152

DATE MAILED:

07/31/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/199,506

Applicant(s)

ACCARDI ET AL.

Examiner

Bunjoo Jaroenchonwanit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 1998.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 4 recites the limitation "the service data" in line 19. There is insufficient antecedent basis for this limitation in the claim. For examination purpose, "the service data" will be interpreted as "the exchange data".
3. Claim 35 recites the limitation "the service center" in line 12. There is insufficient antecedent basis for this limitation in the claim. For examination purpose, "the service center" will be interpreted as "the service facility".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1-4, 6, 8 and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Jago et al. (US. 5,938,607).
6. Claim 1, Jago discloses a system for servicing a medical diagnostic apparatus (system 300, fig.2) comprises a diagnostic apparatus (system 10, Fig.1; system 200, 202, Fig.2),

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including a service server (an HTTP server 30, browser 100, fig.1) for originating a service request and a network communication module for transmitting the service request (TCP/IP module 46, Ethernet connection module 50, fig.1).

Jago further discloses a service facility remote from the diagnostic apparatus (hospital, which includes physician, locates remotely from the diagnostic apparatus, fig.2; Col.9, lines 49-58). The facility includes a network server for receiving the service request and exchange data with the apparatus in response to the service request (servers (400, 500) communicate with the apparatus (200, 202)).

7. Claim 2, Jago discloses the diagnostic apparatus includes a network browser user interface for defining the service request originated by the server and transmitted by the network communications module (Browser 100, Fig.1; Col.8, lines 49-57).

8. Claim 3, Jago discloses the system includes data storage device couple to the network server (image storage 24, fig.1 library in HIS 400 RIS 500, fig.2; Col.9, line 49-55). The storage (library) storing service data (image from ultrasound service, exam categories, Col.9, lines 62-65) representative of identifying or operational parameters (categories identify type of service abdominal, obstetrical, etc., Col.9, lines 66-67) of the diagnostic apparatus (Col.9, line 59 – Col.10, line 15).

9. Claim 4, Jago discloses the library includes data identify type of examination (exam categories) and network communication between the HIS, RIS server (400, 500) and the diagnostic apparatus (200, 202) (Col.9, lines 49-Col.10 lines 15). The teaching is inherent identifying type and location of the apparatus.

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10. Claim 6, Jago discloses the service facility includes a messaging circuit configured to formulate and transmit a message to the diagnostic apparatus in response to the service request the HIS and RIS communicate with diagnostic apparatus at the remote location or in the field by using browser HTML, SMTP, POP (Fig.1, 2, Col.6, lines 7-60; Col.10, lines 15-49). That anticipates the service facility includes a messaging circuit configured to formulate and transmit a message to the diagnostic apparatus in response to the service request.

11. Claims 8 recites an apparatus having similar limitations as discussed in claim 2.

12. Claim 11, Jago discloses at least two of medical diagnostic systems are coupled to a management station via an intranet in a medical facility (diagnostic stations 200, 202; Ethernet Hub 304, administration station 302, fig.2; Col.9, lines 49-53), and wherein the management station is linked to the service facility via the network (administration station 302, Ethernet Hub 304, hospital, service facility 302, fig.2; Col.9, lines 49-53).

13. Claim 12, Jago discloses the communications circuitry is coupled to the station interface for transmitting data representative of station operating parameters to the service facility (parameters 82, 84, fig.3; communication means 31-32, 46-50, fig 2; download reference for RIS, Col.9, lines 49-Col.10 lines 15).

14. Claim 13, Jago discloses the invention substantially as described in claim 1, including each diagnostic system includes a memory circuit for storing log data and wherein the memory circuit transmits the log data (parameter storage 82, 84, fig.3; report storage 24, fig.1). The log data representative serviceable condition (sending data, such as report or parameter from its storage has indicated service able condition).

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15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jago et al. (US. 5,938,607).

17. Claim 5, Jago discloses the invention substantially as described in claim 2, but fails to disclose a field service unit.

However, Jago discloses the diagnostic apparatus includes capable of located remotely from the service facility.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made that the diagnostic apparatus could be located any where for functioning as a field unit. Because having a field unit would enhance capability of providing medical service for the service facility, including would be more convenient to remote patients and the diagnostic could be done faster.

18. Claims 7, 22 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jago as applied to claim 1, and what was well known in the art.

19. Claim 7, Jago discloses the invention substantially as discussed. Jago fails to teach the service facility (400 and 500, Hospital, fig.2) includes scheduling service of the diagnostic system (physician schedules, Col.10, lines 43-51) in response to the service request (sending image to remote physician, Col.7, lines).

Jago does not explicitly disclose a scheduling circuit. Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that circuit or software for scheduling event were old and well known in the art. They were commonly used in various data communication environment including in conventional graphic user interface program such as Microsoft Window, Internet Explorer or Netscape.

It would have been obvious to one of ordinary skill in the art at the time of the invention that Jago in order to have some kind of mechanism, such as software or circuit to setup and maintain physician schedules. For the sake of discussion, even if Jago does not have such mechanisms, it still would have been obvious that the suggestion of having physician schedules would necessitate one skill in the art to incorporate the mechanism for functioning as a scheduler. Setting system schedule would benefit both patient and service providers, because it minimize patients time consuming, allowing patient to have enough time for preparing themselves and the provider can eliminate crisis that may occur from unavailable service.

20. Claim 22, Jago discloses the invention substantially as described in claim 1. It the service facility automatically acknowledging. Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that automatically acknowledging technique was well known in the art. The technique has commonly been utilized in several fields of data communication, such as TCP protocol, Hand Shake signal, or E-Mail auto reply, and etc.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate automatically acknowledging with Jago in order to response to service request, because it would ensure data communication integrity, preventing miscommunication, and enhancing system efficiency while minimizing labor forces.

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21. Claim 27, Jago discloses the invention substantially as described in claim 22, including a preconfigured browser page accessible on the user interface (Browser 100, Fig.1; Col.8, lines 49-57).

22. Claim 28 Jago-Pinsky discloses the invention substantially as described in claim 22, including displaying a visual indicia at the diagnostic system (Jago Col., 10 lines 8-15).

23. Claims 9-10, 14-17, 19, 36-37 and 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jago as applied to claim 1, and Pinsky et al. (US. 5,655,084).

24. Claims 9 and 10, Jago discloses the invention substantially as described in claim 8, including at least two of the plurality of medical diagnostic systems (system 200, 204, fig.2) but does not explicitly disclose different modality types in the system.

However, in the same field of endeavor, Pinsky teaches several modality types includes magnetic resonance image (MRI), computed tomography (CT), X-ray, ultrasound stations (Col.2, lines 25-32).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made incorporates a plurality of modality types within Jago's diagnostic system. Including a plurality of modality types will benefit the patient, because it will allow the system to provide variety of medical diagnostic, which would be more convenient to the patient.

25. Claim 14, Jago discloses the invention substantially as described in claim 13. Jago's teaching, diagnostic physician sends image and report to referring physician (Col.7, line 63-Col.8, line 5; Pinsky Col.3, line 1-5), implies the image send in response to request from the other.

However, in the same field of endeavor, Pinsky teaches the facilities 12-24 capable of acquiring images from imaging center.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made that Jago sending data in response to the prompt from the service facilities. Further, even if Jago act in response to the prompt from the facility, it still would have been obvious to incorporate acquiring images from the facility with Jogu's system. Because it would allow Jago to fully takes advantage from it communication readiness for providing analysis service to remote facilities without imposing high investment cost.

26. Claim 15, Jago-Pinsky discloses the invention substantially as described in claims 9 and 13.

27. Claim 16, Jago-Pinsky discloses the invention substantially as described in claim 15, including a first and second modalities selected from groups of magnetic resonance imaging (MRI) systems, computed exhaust tomography (CT) systems, x-ray systems (XR) and ultrasound systems (US) (Pinsky, Col.1, lines 45-55; Col.2, lines 7-43; Col.3, lines 45-66).

28. Claim 17, Jago-Pinsky discloses each station includes an operator interface for initiating a service request and a communications circuit for transmitting the service request to the service facility (Jago Browser 100, Fig.2, Ethernet and T1 for Tx/Rx data, see detail Col.3, lines 14-19; Col.8, line 23 – Col.9, line 10; Col.13, lines 6-9).

29. Claim 19, Jago-Pinsky discloses the invention substantially as described in claim 17, including acquiring result of scan from the diagnostic apparatus (or imaging center as discussed in claims 1-14. The teaching equivalent teaches the service facility server is configured to prompt data representative of a serviceable condition in response to a service request from the

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first of the second station, and wherein the first and the second stations are configured to transmit the data representative of the serviceable condition in response to the prompt.

30. Claims 36 and 37 are method claims corresponding to the system in claims 15 and 16, respectively.

31. Claim 40-41, Jago –Pinsky discloses the invention substantially as described in claim 36. Furthermore, Jago–Pinsky discloses the diagnostic apparatus communicates with the service facility, inherent steps of establishing a network link.

32. Claim 42-43, Jago–Pinsky discloses the service data includes configuration parameter data for the diagnostic system (scan parameter 82, diagnostic parameters 84 Jago fig.3).

33. Claim 44, Jago –Pinsky discloses the service facility includes a plurality of service facilities disposed at locations remote from one another (Pinsky hospital 12-24).

34. Claims 18, 26, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jago-Pinsky as applied to claim 17, and was what well known in the art.

35. Claim 18, Jago-Pinsky discloses the invention substantially as described in claim 17. It does not explicitly disclose transmit an acknowledgment message. Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that sending acknowledge was well known in the art. The feature has been commonly utilized in several fields of data communication, such as TCP protocol, Hand Shake signal, E-Mail, and etc.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include transmitting acknowledge message with Jago –Pinsky because it would ensure data

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communication integrity and further preventing problems that may occur because of missing communication.

36. Claim 26 Jugo and well-known art discloses the invention substantially as described in claim 22, but fails to includes type and identification of the system. However, Pinsky teaches several modality types (Col.2, lines 25-32).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made incorporates a modality types within Jago's diagnostic system. Including the modality types with data representing will allow the system to identify appropriate service faster.

37. Claim 38 is a method claim corresponding to the system in claim 18.

38. Claim 39 Jago-Pinsky discloses the invention substantially as described in claim 36, but does not disclose the service request messages include data uniquely identifying.

Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that unique identifier was well known in the art and commonly used in network communication.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate unique identifier with the data send form the diagnostic apparatus to the service facility in Jago-Pinsky in order for system to identify source of the data.

Doing so will allow system to process the received data faster without having to spend time in tracking source of the data.

39. Claims 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Jago-Pinsky as applied to claim 15, and further in view of Elliott et al. (US. 5,655,084).

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40. Claims 20-21, Jago-Pinsky discloses the invention substantially as described in claim 1. It does not explicitly disclose the serviceable condition includes malfunction of the station.

However, in the same field of endeavor, Elliott teaches a diagnostic system for CT scanners, which capable of monitoring operational condition of the medical diagnostic apparatus. The operation condition comprises malfunction status and operation parameters (e.g., operator useable information). Elliott further teaches latching (logging) operational history information and transmitting the information to polling (service facility) station (Elliott abstract; Col.2, lines 4-25).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the logging and sending equipment condition to polling station with Jago -Pinsky in order to allow the system to transmit the information related to service condition to the medical service, such as hospital, health care service center or doctor offices. By letting the service facility to understand the service condition, such as system malfunction will help the facility to redirect request to other serviceable stations. By that it will improve medical service efficiency and capable of avoiding fatality that may occur from inaccessible to the diagnostic service.

41. Claims 23-25 and 29-35 are rejected under 35 U.S.C. 103(a) as being anticipated by Jago and well known art (Jago) as applied to claim 22, and further in view of Elliott et al. (US. 5,655,084).

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42. Claim 23, Jago discloses the invention substantially as described in claim 22. It does not explicitly disclose the serviceable condition includes transmitting data representative of a potential malfunction.

However, in the same field of endeavor, Elliott teaches a diagnostic system for CT scanners, which capable of monitoring operational condition of the medical diagnostic apparatus. The operation condition comprises malfunction status and operation parameters (e.g., operator useable information). Elliott further teaches latching (logging) operational history information and transmitting the information to polling (service facility) station (Elliott abstract; Col.2, lines 4-25).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the logging and sending equipment condition to polling station with Jago in order to allow the system to transmit the information related to service condition to the medical service, such as hospital, health care service center or doctor offices. By letting the service facility to understand the service condition, such as system malfunction will help the facility to redirect request to other serviceable stations. By that it will improve medical service efficiency and capable of avoiding fatality that may occur from inaccessible to the diagnostic service.

43. Claim 24, Jago-Elliott discloses the invention substantially as described in claim 23, including the diagnostic apparatus response to a prompt by the service facility, as discussed in claim 19.

44. Claim 25, Jago-Elliott discloses the invention substantially as described in claim 23, including the prompt is generated automatically as discussed in claim 22.

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- 45. Claim 29 recites similar limitation as in the method in claim 25.
- 46. Claim 30 recites similar limitation as in the method in claim 29 and 2.
- 47. Claim 31, Jago-Elliott discloses the unique identifier as discussed in claim 26.
- 48. Claim 32, Jago-Elliott discloses the invention substantially as described in claim 29, but automatic accessing electronic records. Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that automatically accessing data technique was well known in the art. The technique has been commonly utilized in several fields of network analyzer, such as web crawler.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the automatically access record technique with Jago-Elliott service facility in order to allowing the facility to retrieving data automatically. Doing so will improve system efficiency, minimizing work forces and ensuring reliable services.

- 49. Claim 33, Jago-Elliott discloses the invention substantially as described in claim 32, but the data includes subscriber status. Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that subscriber status indication was well known in the art. The indication has been commonly utilized in several fields of service subscription, such as Internet service subscribing, which the service providers have included all subscribers status in their database.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the subscriber indication with Jago-Elliott parameters for indicate status of the diagnostic apparatus. Doing so, the system will acknowledge subscribers condition faster.

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Thereby, it would act in response to such condition faster, therefore, increasing system efficiency.

50. Claim 34, Jago-Elliott discloses the invention substantially as described in claim 32, including service history, as discussed in claim 13.

51. Claim 35, Jago-Elliott discloses the invention substantially as described in claim 29, but automatic linking.

Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that automatic linking technique was well known in the art and commonly used in hypertext link.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to use automatic linking with Jago-Elliott in order to link the service facility and the diagnostic apparatus. Doing so will simplify operation, minimizing operation time consumption and be more convenient to the users.

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52. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bunjob Jaroenchonwanit whose telephone number is (703) 305-9650. The examiner can normally be reached on Monday to Thursday from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H. Rinehart, can be reached on (703) 305-4815. The fax for this Group is (703) 309-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.



Bunjob Jaroenchonwanit
Examiner
Art Unit 2152



LE HIEN LUU
PRIMARY EXAMINER